

REMARKS

This paper is responsive to the Office communication that was mailed on April 3, 2007 (the "Office Communication") and to the Office action dated September 5, 2006 (the "Office Action"). This paper is a resubmission of Applicant's previous Response, dated January 5, 2007, supplemented as required by the Office Communication.

Claims 1-22 were previously pending in the application.

Claims 1, 9, and 10 have been amended. New claims 23-27 have been added and no claims have been canceled. Accordingly, claims 1-27 are now pending.

Claims 1-22 stand rejected.

Claims 1, 3, 6, 9-14, and 16-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,006,192 issued to Cheng et al. ("*Cheng*") in view of U.S. Patent No. 5,930,762 issued to Masch ("*Masch*"). (Office Action at 2.) Applicant understands that this rejection also relies on a combination of *Cheng* and *Masch* with U.S. Patent No. 6,167,405 issued to Rosensteel, Jr. et al. ("*Rosensteel*"). (Office Action at 3-4.) Claims 2, 4, 5, 7, 8, 10, 11, 15, 21, and 22 stand rejected under § 103(a) as being unpatentable over *Cheng* in view of *Masch* and further in view of U.S. Patent No. 6,453,303 issued to Li. ("*Li*").

The amendments add no new matter. Support for the amendments may be found, for example, in FIG. 13 and on pp. 8, 9, and 14 of the Specification as originally filed. Applicant respectfully submits that the claims are patentable and respectfully requests reconsideration of the pending rejections in view of the amendments and remarks presented herein.

Formal Matters

Applicant expresses gratitude for the Examiner's recognition of Applicant's previous Response, dated January 5, 2007, as a *bona fide* reply to the Office Action. In this paper, Applicant resubmits the previous Response, supplemented with remarks on the newly added claims 23-27, as required by the Office Communication.

Rejections under 35 U.S.C. § 103(a)

Claims 1, 3, 6, 9-14, and 16-21 stand rejected under § 103(a) as being unpatentable over *Cheng* in view of *Masch*, and further in view of *Rosensteel*. Claims 2, 4, 5, 7, 8, 10, 11, 15, 21, and 22 stand rejected under § 103(a) as being unpatentable over *Cheng* in view of *Masch* and further in view of *Li*. Applicant respectfully submits that the cited portions of the references fail to disclose each limitation of Applicant's claims.

The cited portions of the references fail to disclose that “the specifying the component plan to be analyzed is performed prior to the submitting the request for analysis.”

For example, claim 1 includes limitations of specifying a component plan to be analyzed and of submitting a request for analysis to an analytic engine for calculation of risk and performance indicators. Claim 1 also includes a limitation that “**the specifying the component plan to be analyzed is performed prior to the submitting the request for analysis.**” With regard to this limitation, the Office Action cites the following portion of *Rosensteel*.

But, the above described systems do not relieve an administrator from still having to perform time consuming tasks relating to the creation of warehouse requests. Also, from the above, it is seen that the warehouse request generation process can be quite time consuming. This is true because data warehouses typically have complex structures

organized for efficiency of data retrieval. In generating the requests, data must be gathered from multiple database systems on multiple machine nodes. The database systems may be of different types or from different vendors. Thus, the gathering process can be quite complex. Once gathered, the data needs to be merged. But the merge can be complicated because of differences in the way the data has been recorded in the different systems. Finally, there is the physical efficiencies to manage. Large amounts of data must be moved efficiently. Processes must be done in parallel, when possible. The processes must be sequenced with dependencies, and carried out as soon as the dependent processes finish. Hence, a system administrator having detailed knowledge of the underlying data structures and the SQL programming language is still required to expend substantial time in constructing such requests.

Accordingly, it is a primary object of the present invention to provide a system and method for facilitating the warehouse request generation process.

It is a further more specific object of the present invention to provide a graphical interface that allows a system administrator to **view the different components of warehouse requests for analysis prior to execution** by the warehouse system.

(*Rosensteel* at 2:29-60 (emphasis added).) The Office Action appears to argue on p. 3 that since *Rosensteel* allows a system administrator to view components of warehouse requests “prior to” execution by a warehouse system, this reference discloses Applicant’s limitation that “the specifying the component plan to be analyzed is performed prior to the submitting the request for analysis.”

Applicant respectfully disagrees. The two words “prior to” are present in Applicant’s claim limitation and also in the cited passage from *Rosensteel*. While *Rosensteel* teaches that one event happens “prior to” another, these events from *Rosensteel* do not have any correspondence to the events set forth in Applicant’s claim 1.

As a first example, *Rosensteel*’s “warehouse request” is not related to the component plan in Applicant’s claim 1. The cited portions of *Rosensteel* describe a tool in which a system

administrator can view the components of a request for data before the request is carried out. In *Rosensteel*, the term “data warehouse” refers to “a database containing data that was gathered from a variety of sources (e.g. existing production databases).” (*Rosensteel* at 1:14-16.) The “warehouse requests” are used to populate the data tables in a data warehouse. The warehouse requests include steps such as extracting of data from an existing database located in a source database, moving the data to a target database, transforming the data to match the requirements of the target database, and then storing the data in the target database. (*Id.* at 1:12-14, 22-27, 51-57.) In contrast, Applicant’s claim 1 sets forth that a component plan that identifies data to be analyzed. Further, the component plan identifies the quantities of components that are positioned in each of one or more time planning periods. *Rosensteel*’s “warehouse requests” do not have any such properties, and thus cannot be said to correspond to the component plan in Applicant’s claim 1.

As a second example, the cited portions of *Rosensteel* specifies a temporal relationship in which a system administrator is allowed to “view” the components of a warehouse request for analysis “prior to” the “execution” of the warehouse request. In Applicant’s claim 1, a component plan is specified prior to the submitting of a request for analysis. In order for the argument presented in the Office Action to bear weight, the “view” in *Rosensteel* would have to be understood as teaching that a component plan is specified, with the component plan identifying the quantities of components that are positioned in each of one or more time planning periods, as set forth in the language of Applicant’s claim 1. Further, the “execution” in *Rosensteel* would have to be understood as teaching the submission of a request for analysis, with the request for analysis identifying the component plan—again as set forth in the language of Applicant’s claim 1. Such understandings would require a grave stretching of the teachings of

Rosensteel. A person having ordinary skill in the art would not come to such an understanding from reading the cited passages of *Rosensteel*.

Applicant also does not find this limitation in the cited portions of *Masch* or *Li*. This limitation is therefore absent from the cited portions of the references. At least for this reason, Applicant's independent claim 1 and all claims dependent therefrom are allowable under § 103(a). At least for similar reasons, Applicant's independent claims 9 and 16 and all claims dependent therefrom are also allowable under § 103(a).

The cited portions of the references fail to disclose “specifying a component plan to be analyzed, the component plan identifying the quantities of each component that are positioned for each planning period.”

Further, additional limitations of claim 1 are also not disclosed in the cited art. For example, among the limitations of independent claim 1 is the act of “specifying a component plan to be analyzed, the component plan identifying the quantities of each component that are positioned for each planning period.” The Office Action argues on p. 3 that this limitation is presented in the cited portions of *Cheng*, and cites a portion of that reference that discloses a list of mathematical quantities for a materials planning problem. The quantities include variables $Q_{i,t}$, $Q_{i,0}$, $X_{i,t}$, and a_{ij} , which represent components in the materials planning problem of *Cheng*. No other aspect of the cited passage describes amounts of components; thus, these four variables are the only aspects of the cited passage that may possibly correspond to the claim limitation regarding a component plan to be analyzed, with the component plan identifying the quantities of each component that are positioned for each planning period.

However, none of these four *Cheng* variables are quantities that are specified as an input to be analyzed. Rather, they are internal variables used by a mathematical analysis in *Cheng*. In contrast, claim 1 includes specifying a component plan to be analyzed prior to the ensuing analysis. Since the *Cheng* variables are not specified prior to the analysis, they do not meet the limitation recited in the claim of a component plan to be analyzed, with the component plan identifying the quantities of each component that are positioned for each planning period.

Further, the component plan in claim 1 identifies quantities of each component **for each planning period**. The cited portions of *Cheng* do not teach that such quantities should be specified throughout a series of planning periods. Rather, the cited passage teaches that an initialization is entered at most once, “at the beginning of the planning horizon” for $Q_{i,0}$. (*Cheng* at 3:51-52.) Thus, this limitation is also not present in the cited portions of *Cheng*, which has the entry of (at most) only one initial inventory $Q_{i,0}$, which occurs (if at all) at the beginning of an entire planning horizon.

Applicant also does not find this limitation in the cited portions of *Masch* or *Rosensteel*. This limitation is therefore absent from the cited portions of the references. At least for this reason, Applicant’s independent claim 1 and all claims dependent therefrom are allowable under § 103(a). At least for similar reasons, Applicant’s independent claims 9 and 16 and all claims dependent therefrom are also allowable under § 103(a).

The cited portions of the references fail to disclose quantities that are “positioned” for each planning period.

Additionally, none of the variables in the cited portions of *Cheng* is a quantity of components “positioned” for each planning period, as set forth in independent claim 1. As set

forth in the Definitions in Applicant's specification, "positioning is an alternative to ordering components." By positioning a component, a company or other entity "arrange[s] for it to be available without actually putting the component in inventory. Thus, as an example, a supplier may agree to provide a certain quantity of a component during a particular time frame. The component is positioned in that quantity for that time frame." (Specification at 5.)

The system disclosed in the cited portions of *Cheng* does not use information regarding positioned components, because the cited portions of *Cheng* do not discuss the possibility of having components available without actually putting them in inventory. Rather, the cited portions of *Cheng* appear to relate only to amounts of components that are available in inventory, and to the general area of inventory control and inventory problems. The cited portions of *Cheng* do not discuss the use of positioned components as opposed to inventoried components. (See, e.g., *Cheng* at 1:16-17, 25-29; 2:5-7; 3:40, 43, 48, 49, 51; 9:47-50.)

Accordingly, the cited portions of *Cheng* do not discuss, teach, or suggest identifying the quantities of each component that are "positioned" for each planning period. Applicant also does not find this limitation in the cited portions of *Masch* or *Rosensteel*. This limitation is therefore absent from the cited portions of the references. At least for this reason, Applicant's independent claim 1 and all claims dependent therefrom are allowable under § 103(a).

The cited portions of the references fail to disclose the use of "uninventoried" available components.

Applicant's independent claim 9 includes a limitation of capturing assumptions about products and components to create a scenario. The scenario describes the demand, financial, and

operational information for one or more products and components for one or more time planning periods. Further, the components include “**uninventoried**” available components.

The Office Action observes on p. 3 that this limitation is not disclosed in the cited portions of *Cheng*. Nevertheless, the Office Action proposes that:

incorporating this feature into Chen[g] would have been obvious to a person of ordinary skill in the art at the time of the applicant’s invention in order to provide inventory minimization and revenue maximization.

(Office Action at 3.)

Applicant respectfully disagrees. The Office Action does not point to any reference that describes, teaches, or even suggests the proposed modification. At best, the Office Action opines that such a modification may provide a benefit of “inventory minimization and revenue maximization.” Applicant submits that even if a person having ordinary skill in the art were motivated with such a goal, this goal would not make the proposed modification obvious.

A person having ordinary skill in the art and desiring “inventory minimization and revenue maximization” would not naturally envision the modification proposed in the Office Action. It would be a far leap of the imagination to go from wishing for “inventory minimization and revenue maximization” to implementing the claimed limitation of capturing assumptions about products and components where the components include uninventoried available components. A person having ordinary skill in the art would not envision this limitation from the cited portions of *Cheng* with the simple motivation proposed in the Office Action.

This limitation of claim 9 is therefore absent from the cited portions of *Cheng*, and is not obvious in light of those passages. Independent claim 9 and all claims dependent therefrom are

allowable under § 103(a). At least for similar reasons, independent claim 16 and all claims dependent therefrom are also allowable under § 103(a).

New claims

Claims 23-27 have been added. Applicant respectfully submits that the claims are allowable over the cited portions of the references because the cited passages fail to disclose each limitation of the claims. For example, independent claim 23 is directed to a computer-implemented method that includes receiving an input. The input includes first, second, third, and fourth sets of data. The first set of data regards available quantities of resources in a first planning period. The resources are required to produce products. The second set of data regards available quantities of the resources in a second planning period. The third set of data includes one or more of (a) a forecasted demand of the products on a period-by-period basis, or (b) a revenue gained from satisfying demand for the products on a period-by-period basis, or (c) product availability targets for the products on a period-by-period basis and confidence levels of the product availability targets on a period-by-period basis. The fourth set of data includes a relationship between each product and corresponding resources required to produce each product. Applicant submits that at least these limitations are not disclosed in the cited portions of the references. Claims 24-27 depend on independent claim 23, and are therefore allowable for at least the same reasons.

CONCLUSION

Applicant submits that all claims are now in condition for allowance, and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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